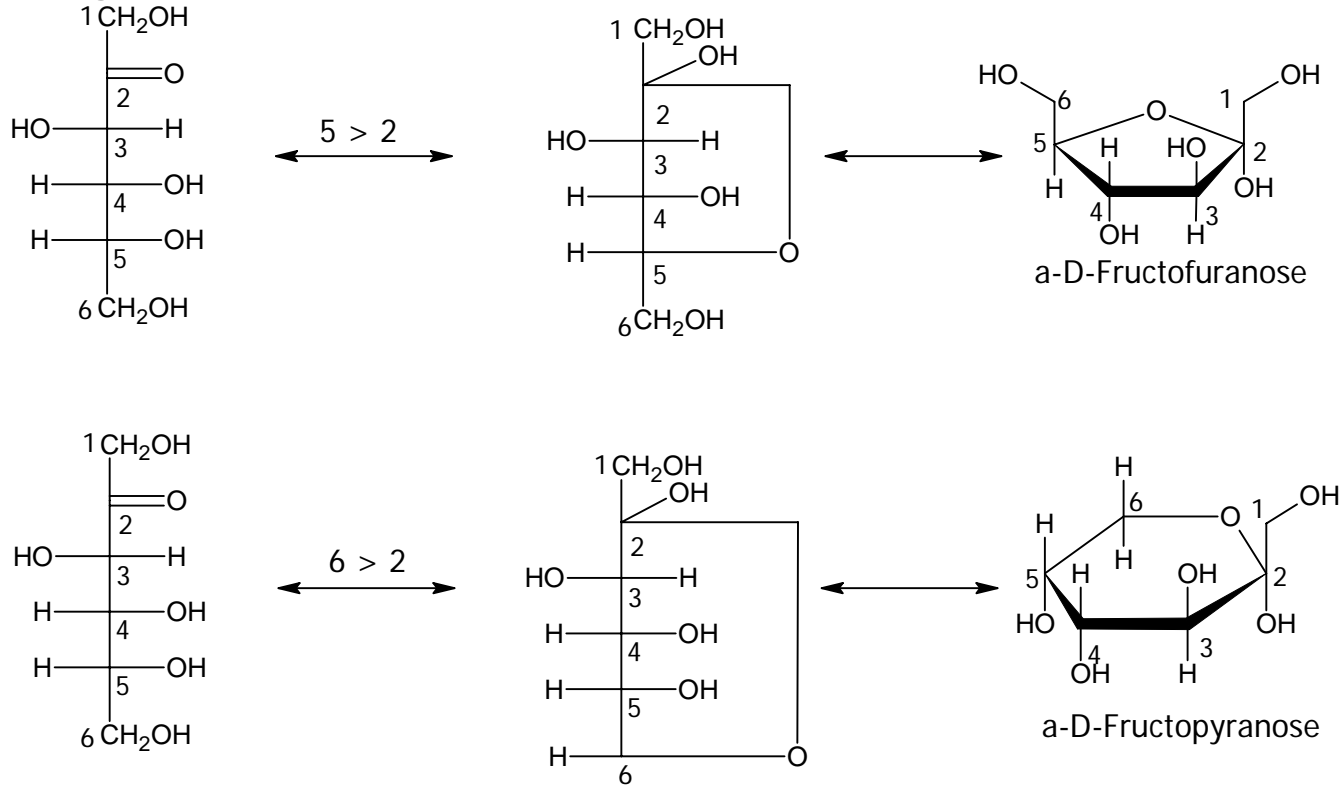
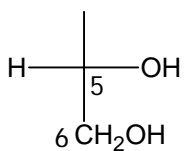


Carbohydrates: Rings and Naming

Rings

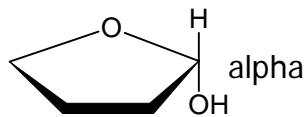


D vs. L



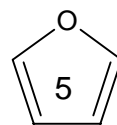
take a look at the last chiral carbon. If its to the right then its called the "D" form.

ABBA

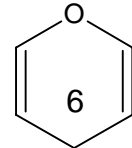


Sugars Like to Dance like ABBA =)
So Alpha Below, Beta Above

5 vs 6 Membered Ring

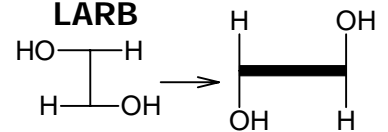


furanose



pyranose

LARB



(Don't ask.)
Remember those -OH groups, to the Left in the chain form means Above in the Ring Form.
(and Right = Below)

Naming

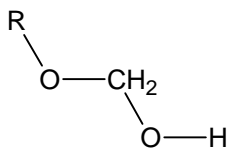
alpha -- L -- sugar name pyranosyl - (X -> Y) ...
beta D furanosyl

pyranose/oside
furanose/oside

-ose vs. -oside

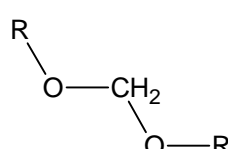
-ose = reducing sugar end

it is an hemiacetal



-oside = non-reducing sugar end

it is an acetal



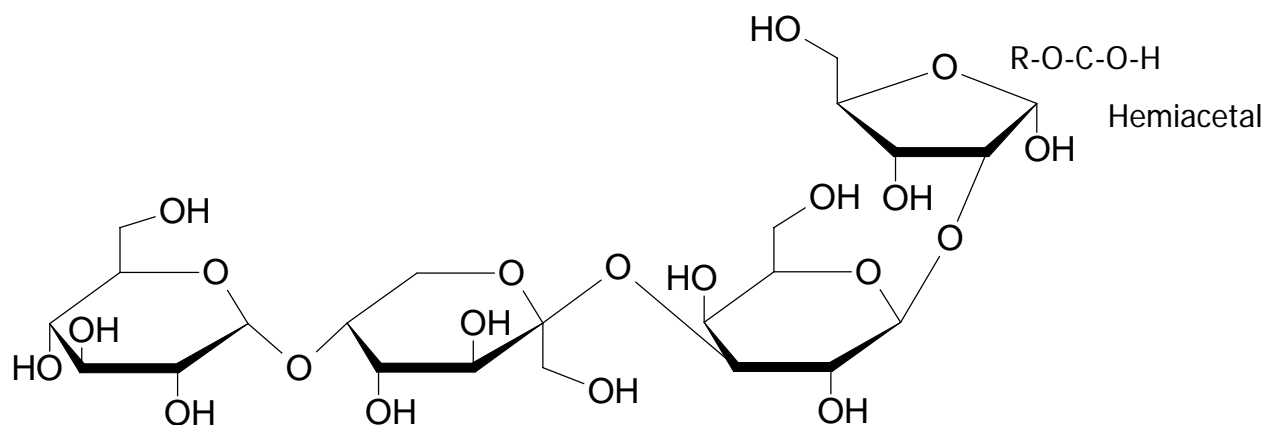
Carbohydrates: Rings and Naming

Summary:

Part	Example
1. the form of the sugar	a, b
2. sugar name without "se"	D-gluco, D-fructo
3. type of ring	if 6 member = pyrano if 5 member = furano
4. ending (if another sugar next) syl	
5. the connection	1>5
6. repeat 1-3 for each next sugar, if another sugar after, repeat 4-6	
7. if last sugar, ending	if hemiacetal = ose if acetal = oside

Examples:

a-D-glucopyranosyl-(1>5)-b-D-fructopyranosyl-(2>3)-b-D-galactopyranosyl-(1>2)-a-D-ribofuranose



a-D-glucopyranosyl-(1>5)-b-D-fructopyranosyl-(2>3)-b-D-galactopyranosyl-(1>1)-a-D-ribofuranoside

